

REMARKS / ARGUMENTS

In complete response to the outstanding Official Action of February 6, 2009, on the above-identified application, reconsideration is respectfully requested. Claims 7, 8, and 10 - 12 remain in this application.

Claim Rejections Under 35 U.S.C. § 103

Claims 7 and 8 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Syte et al '589. Applicants respectfully submit that claims 7 and 8 are not unpatentable over Syte et al '589.

The Examiner notes that Syte et al '589:
"does not have an intermediate tank on the side stream, however it would have been obvious for one of ordinary skill in the art at the time of the invention to install a tank, as a surge capacity, especially in a confined space, to use for balancing the pressure in the system, especially in a continuous process or where space is limited."

The Applicants would like to respectfully point out that the intermediate tank (V3) in the present application does not function "as a surge capacity" or "for balancing the pressure *of the system*" (emphasis added). It is clearly stated that the function of the intermediate tank (V3) is to:

"The volume V3 permits rapid partial emptying of the quenching cell V1 by partial or complete pressure balancing between the two volumes. This rapid emptying also has the advantage of lowering the energy consumption for stirring the gas in the cell (the lower pressure decreases the power requirement of the turbines), or serves to decrease the cooling rate in an intermediate step of the quenching method (staging)."

(Paragraph 0026)

The present invention is further characterized as follows:

"tank V3 is always a key component in the invention because of the time it saves during recycling, since the gas contained in V3 can be dealt with while V1 is in operation." (*Paragraph 0027*)

Hence, intermediate tank V3 is not a surge tank or a system balance. Intermediate tank V3 is a novel means for quickly evacuating the quenching cell (V1), so that cycle throughput and efficiency may be increased.

With all due respect, the Applicants feel that the Examiner has failed to make a *prima facie* case of obviousness. The Examiner has not provided any explanation of how the intermediate tank V3 in the present application is a simple matter of design choice or standard design technique. Thus the obviousness rejection is improper and must be withdrawn. As claim 8 is dependent upon claim 7, the rejection as pertains to this claim is improper as well.

Claims 10 - 12 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Syte et al. '589 further in view of Bowe. As discussed above, Syte et al. '589 fails to disclose all the elements of claim 7, and Bowe fails to remedy this deficiency. Hence, claims 10 - 12 are not obvious over Syte et al. '589 either alone or in combination with Bowe. Hence there rejections are moot and must be withdrawn.

Claims 7 and 8 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Syte et al '589 in view of McKay '190. Applicants respectfully submit that claims 7 and 8 are not unpatentable over Syte et al '589 in view of McKay '190.

As discussed in detail above, intermediate tank V3 is not a surge tank or a system balance. Intermediate tank V3 is a novel means for quickly evacuating the quenching cell (V1), so that cycle throughput may be increased.

In contrast, the "out-of-line cooling reactor" (element 10), in the '190 patent serves an entirely different purpose. It is not a transient decompressing charge tank

that quickly evacuates the system working tank, so that the evacuated gas can be handled efficiently in parallel with the next working tank cycle. It is a cooling reactor, which is clearly noted in the background section of the '190 patent as a common feature in any such cycle (*see generally column 1, lines 28 – 55*). The proposed novelty for the cooling reactor in the '190 patent is that it is not in the normal placement (i.e. between the syngas reactor and the primary reduction reactor), but “out-of-line” in the traditional sense.

The working fluid within the “out-of-line” cooling reactor is not evacuated from the system working tank (i.e. one of the three reactors 12, 14, or 16), but simply has a shared gas header. The gas that is discharged from the “out-of-line” cooling reactor is not introduced into any system buffer tank, and then recycled into the system working tank (reactors 12, 14, or 16), but simply discharged back into this shared header. The cooled, reduced ore is not reintroduced, or recycled, into the system working tanks, but forwarded to a downstream tank (charging reactor 18) after which it leaves the system.

One skilled in the art would find absolutely no correlation between the function of the “out-of-line” cooling reactor and the intermediate tank V3 of the present invention. This skilled artisan would not be motivated to combine the '190 patent with the '589 application to find the instant invention obvious.

Thus the obviousness rejection is improper and must be withdrawn. As claim 8 is dependent upon claim 7, the rejection as pertains to this claim is improper as well.

CONCLUSION

Accordingly, it is believed that the present application now stands in condition for allowance. Early notice to this effect is earnestly solicited. Should the Examiner believe a telephone call would expedite the prosecution of the application, he is invited to call the undersigned attorney at the number listed below.

Respectfully submitted,

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